What is claimed is:

CLAIMS

1. A method for use in forming a read sensor for a magnetic head, comprising:

prior to forming a trackwidth for the read sensor:

forming a photoresist layer in a central region over a plurality of read sensor layers;

etching the read sensor layers such that end portions of the read sensor layers are removed and a central portion remains underneath the photoresist layer, to thereby define a stripe height for the read sensor; and

removing the photoresist layer through mechanical interaction with a chemical-mechanical polishing (CMP) pad.

2. The method of claim 1, wherein the photoresist layer is formed without an undercut.

3. The method of claim 1, wherein the photoresist layer comprises a first photoresist layer and the method further comprises:

after defining the stripe height for the read sensor:

forming a second photoresist layer in a central region over the read sensor layers; and

etching the read sensor layers such that end portions of the read sensor layers are removed and a central portion remains underneath the second photoresist layer, to thereby define the trackwidth for the read sensor.

4. The method of claim 1, wherein the photoresist layer comprises a first photoresist layer and the method further comprises:

after defining the stripe height for the read sensor:

forming a second photoresist layer in a central region over the read sensor layers;

etching the read sensor layers such that end portions of the read sensor layers are removed and a central portion remains underneath the second photoresist layer, to thereby define the trackwidth for the read sensor;

depositing hard bias and lead layers around the read sensor; and

removing the second photoresist layer through mechanical interaction with a CMP pad.

5. The method of claim 1, further comprising:

after etching the read sensor layers, forming an insulator layer around the read sensor where the end portions were removed.

6. The method of claim 1, wherein the act of removing the photoresist layer comprises mechanically compressing the photoresist layer with the CMP pad.

7. The method of claim 1, further comprising:

prior to removing the photoresist layer, forming a protective layer between the read sensor layers and the photoresist layer.

8. The method of claim 1, further comprising:

prior to removing the photoresist layer, forming a protective layer over materials which surround the read sensor layers; and

wherein the materials comprise one of insulator materials and lead materials.

9. The method of claim 1, further comprising:

prior to removing the photoresist layer, forming a protective layer over the read sensor layers and surrounding materials to a thickness of between about 50 - 200 Angstroms.

10. The method of claim 1, further comprising:

prior to removing the photoresist layer, forming a protective layer over the read sensor layers and surrounding materials; and

wherein the protective layer comprises carbon.

11. The method of claim 1, further comprising:

prior to removing the photoresist layer, forming a protective layer over the read sensor layers and surrounding materials; and

wherein the protective layer comprises carbon having a hardness of about 22 GPa.

12. A method for use in making a read sensor for a magnetic head, comprising:

defining a stripe height for read sensor by:

forming a first photoresist layer in a central region over a plurality of read sensor layers;

etching the read sensor layers such that end portions of the read sensor layers are removed and a central portion remains underneath the first photoresist layer;

removing the first photoresist layer through mechanical interaction with a chemical-mechanical polishing (CMP) pad;

subsequently defining a trackwidth for the read sensor by:

forming a second photoresist layer in a central region over the read sensor layers;

etching the read sensor layers such that end portions of the read sensor layers are removed and a central portion remains underneath the second photoresist layer; and

removing the second photoresist layer through mechanical interaction with a CMP pad.

13. The method of claim 12, further comprising:

after etching the read sensor layers with use of the first photoresist layer, forming an insulator layer around the read sensor where the end portions were removed.

14. The method of claim 12, further comprising:

after etching the read sensor layers with use of the first photoresist layer, forming an insulator layer around the read sensor where the end portions were removed; and

after etching the read sensor layers with use of the second photoresist layer, forming hard bias and lead layers around the read sensor where the end portions were removed.

15. The method of claim 12, wherein the first and the second photoresist layers are formed without undercuts.

16. The method of claim 12, wherein the act of removing the first photoresist layer comprises mechanically compressing the first photoresist layer with the CMP pad.

17. The method of claim 12, further comprising:

prior to removing the first photoresist layer, forming a protective layer over the read sensor layers and surrounding materials.

18. The method of claim 12, further comprising:

prior to removing the first photoresist layer, forming a protective layer over read sensor layers and surrounding materials; and

wherein the protective layer comprises carbon.

19. The method of claim 12, further comprising:

prior to removing the first photoresist layer, forming a first protective layer over the read sensor layers and surrounding materials; and

prior to forming the second photoresist layer, forming a second protective layer over the read sensor layers and surrounding materials.

20. The method of claim 12, further comprising:

prior to removing the first photoresist layer, forming a first protective layer over the read sensor layers and surrounding materials;

prior to forming the second photoresist layer, forming a second protective layer over the read sensor layers and surrounding materials; and

wherein the first and the second protective layers comprise carbon.

21. The method of claim 12, further comprising:

prior to removing the first photoresist layer, forming a first protective layer over the read sensor layers and surrounding materials;

prior to forming the second photoresist layer, forming a second protective layer over the read sensor layers and surrounding materials; and

wherein the first and the second protective layers comprise carbon having a hardness of about 22 GPa.

22. The method of claim 12, further comprising:

prior to removing the first photoresist layer, forming a first protective layer over the read sensor layers and surrounding materials;

prior to forming the second photoresist layer, forming a second protective layer over the read sensor layers and surrounding materials; and

wherein the first and the second protective layers are formed with a thickness of between about 50 – 200 Angstroms.

23. A method of forming a read sensor of a magnetic head, comprising:

forming a photoresist without undercuts in a central region over a plurality of read sensor layers;

forming a protective layer below the photoresist;

etching the read sensor layers such that end portions of the read sensor layers are removed and a central portion remains underneath the photoresist, to thereby define a stripe height for the read sensor; and

removing the photoresist through mechanical interaction with a chemical-mechanical polishing (CMP) pad.

24. The method of claim 23, wherein the photoresist comprises a first photoresist and the method further comprises:

after defining the stripe height for the read sensor:

forming a second photoresist without undercuts in a central region over the read sensor layers; and

etching the read sensor layers such that end portions of the read sensor layers are removed and a central portion remains underneath the second photoresist, to thereby define the trackwidth for the read sensor.

25. The method of claim 23, wherein the photoresist comprises a first photoresist and the method further comprises:

after defining the stripe height for the read sensor:

forming a second photoresist without undercuts in a central region over the read sensor layers;

etching the read sensor layers such that end portions of the read sensor layers are removed and a central portion remains underneath the second photoresist, to thereby define the trackwidth for the read sensor; and

removing the second photoresist through mechanical interaction with a CMP pad.

26. The method of claim 23, wherein the protective layer comprises carbon.

27. The method of claim 23, wherein the protective layer comprises carbon having a hardness of about 22 GPa.

28. The method of claim 23, wherein the protective layer is formed to a thickness of between about 50 – 200 Angstroms.

29. The method of claim 23, wherein the protective layer is formed over the read sensor layers.

30. The method of claim 23, wherein protective layer is formed over the read sensor layers and surrounding insulator materials.